



# MATERIAL SAFETY DATA SHEET

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### MSDS Identification:

- **Key:** 71075
- **Name:** Benzoyl cyanide 98%

### Catalog Numbers:

AC152060000, AC152060250, AC152061000

### Synonyms:

- Phenylglyoxylonitrile; Benzeneacetonitrile, alpha-oxo-;
- Phenylglyoxynitrile; alpha-Oxaphenylacetonitrile

### Company Identification (Europe):

Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

### Company Identification (USA):

Acros Organics  
One Reagent Lane  
Fairlawn, NJ 07410

### For information in North America, call:

- 800-ACROS-01

### For information in Europe, call:

- 0032(0) 14575211

### For emergencies in the US, call CHEMTREC:

- 800-424-9300

### For emergencies in Europe, call:

- 0032(0) 14575299

## SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

| CAS #    | Chemical Name   | %  | EC #      |
|----------|-----------------|----|-----------|
| 613-90-1 | Benzoyl cyanide | 98 | 210-359-7 |

**Hazard Symbols:** T

**Risk Phrases:** 23/24/25

## SECTION 3 - HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**Appearance :** yellow solid. Flash Point: 84 deg C. Warning! Causes respiratory tract irritation. May cause digestive tract irritation. Moisture sensitive. May cause central nervous system depression. Causes eye and skin irritation. Harmful if swallowed, inhaled, or absorbed through the skin.

**Target Organs:** Central nervous system.

#### **POTENTIAL HEALTH EFFECTS**

**Eye:** Causes eye irritation. May cause chemical conjunctivitis.

**Skin:** Causes skin irritation. Harmful if absorbed through the skin.

**Ingestion:** Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** Causes respiratory tract irritation. Can produce delayed pulmonary edema. Inhalation at high concentrations may cause CNS depression and asphyxiation. Harmful if inhaled.

**Chronic:** Effects may be delayed.

#### **SECTION 4 - FIRST AID MEASURES**

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** Treat symptomatically and supportively.

#### **SECTION 5 - FIRE FIGHTING MEASURES**

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

**Extinguishing Media:** Use water spray to cool fire-exposed containers. Use extinguishing media most appropriate for the surrounding fire. Do NOT get water inside containers. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Autoignition Temperature:** Not applicable.

**Flash Point:** 84 deg C ( 183.20 deg F)

**Explosion Limits, lower:** Not available.

**Explosion Limits, upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 1; Instability: 0

#### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Remove all sources

of ignition. Use a spark-proof tool. Provide ventilation. Do not get water inside containers.

## SECTION 7 - HANDLING AND STORAGE

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Do not ingest or inhale. Do not allow contact with water. Use only in a chemical fume hood. Discard contaminated shoes. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep from contact with moist air and steam.

**Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

### EXPOSURE LIMITS

| Chemical Name   | ACGIH       | NIOSH       | OSHA - Final PELs                       |
|-----------------|-------------|-------------|---|
| Benzoyl cyanide | none listed | none listed | 5 mg/m3 TWA(listed under **no name **). |

**OSHA Vacated PELs:**

**Benzoyl cyanide:** 5 mg/m3 TWA (as CN) (listed under \*\* no name \*\*)

### PERSONAL PROTECTIVE EQUIPMENT

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Solid

**Color:** yellow

**Odor:** None reported.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 206 deg C @ 760.00 mmHg

**Freezing/Melting Point:** 29-32 deg C

**Decomposition Temperature:**

**Solubility in water:** Slightly soluble.

**Specific Gravity/Density:**

**Molecular Formula:** C<sub>8</sub>H<sub>5</sub>NO

**Molecular Weight:** 131.13

## SECTION 10 - STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal temperatures and pressures. Moisture sensitive.

**Conditions to Avoid:** Incompatible materials, ignition sources, moisture, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong reducing agents, strong acids, strong bases, moisture.

**Hazardous Decomposition Products:** Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

**Hazardous Polymerization:** Has not been reported.

## SECTION 11 - TOXICOLOGICAL INFORMATION

**RTECS#:**

- CAS# 613-90-1 unlisted.

**LD50/LC50:**

Not available.

**Carcinogenicity:**

**Benzoyl cyanide -**

- Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

**Epidemiology:**

No information available.

**Teratogenicity:**

No information available.

**Reproductive Effects:**

No information available.

**Neurotoxicity:**

No information available.

**Mutagenicity:**

No information available.

**Other Studies:**

The hazards associated with cyanide may be seen in this product.

## SECTION 12 - ECOLOGICAL INFORMATION

### Ecotoxicity:

**Bacteria:** Phytobacterium phosphoreum: EC50 = 3.29-6.28 mg/L; 5,15,30

- min; Microtox test at 15 C

## SECTION 13 - DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## SECTION 14 - TRANSPORT INFORMATION

### US DOT

- Shipping Name: TOXIC LIQUID, ORGANIC, N.O.S.\*
- Hazard Class: 6.1
- UN Number: 2810
- Packing Group: II

### Canadian TDG

- No information available.

## SECTION 15 - REGULATORY INFORMATION

### US FEDERAL

#### TSCA

- CAS# 613-90-1 is listed on the TSCA inventory.

#### Health & Safety Reporting List

- None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

- None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

- None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Uses Rule

- None of the chemicals in this material have a SNUR under TSCA.

#### SARA

#### CERCLA Hazardous Substances and corresponding RQs

- None of the chemicals in this material have an RQ.

### **SARA Section 302 Extremely Hazardous Substances**

- None of the chemicals in this product have a TPQ.

### **Section 313**

- No chemicals are reportable under Section 313.

#### **Clean Air Act:**

- CAS# 613-90-1 listed as \*\* no name \*\* is listed as a hazardous air pollutant (HAP).
- This material does not contain any Class 1 Ozone depleters.
- This material does not contain any Class 2 Ozone depleters.

#### **Clean Water Act:**

- None of the chemicals in this product are listed as Hazardous Substances under the CWA.
- CAS# 613-90-1 is listed as a Priority Pollutant under the Clean Water Act.
- CAS# 613-90-1 is listed as a Toxic Pollutant under the Clean Water Act.

#### **OSHA:**

- None of the chemicals in this product are considered highly hazardous by OSHA.

### **STATE**

Benzoyl cyanide can be found on the following state right to know lists: California, (listed as \*\* no name \*\*), New Jersey, (listed as \*\* no name \*\*), Pennsylvania, (listed as \*\* no name \*\*), Massachusetts, (listed as \*\* no name \*\*).

California No Significant Risk Level: None of the chemicals in this product are listed.

### **European/International Regulations**

#### **European Labeling in Accordance with EC Directives**

- Hazard Symbols: T
- Risk Phrases:
  - R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- Safety Phrases:
  - S 24/25 Avoid contact with skin and eyes.
  - S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### **WGK (Water Danger/Protection)**

- CAS# 613-90-1: 3

#### **United Kingdom Occupational Exposure Limits**

- CAS# 613-90-1: OES-United Kingdom, TWA (listed as \*\* undefined \*\*): 5 mg/m<sup>3</sup> TWA (as CN. except hydrogen cyanide, cyanogen or cyanogen chloride)

#### **United Kingdom Maximum Exposure Limits Canada**

- CAS# 613-90-1 is listed on Canada's NDSL List.
- This product has a WHMIS classification of D1A, D2B.
- CAS# 613-90-1 is not listed on Canada's Ingredient Disclosure List.

#### **Exposure Limits**

- CAS# 613-90-1 (listed as \*\* undefined \*\*): OEL-ARAB Republic of Egypt: TWA 5 mg/m<sup>3</sup>;Skin
- OEL-AUSTRALIA:TWA 5 mg/m<sup>3</sup>;Skin
- OEL-AUSTRIA:TWA 5 mg/m<sup>3</sup>;Skin

- OEL-CZECHOSLOVAKIA:TWA 3 mg/m3;STEL 10 mg/m3 JAN9
- OEL-DENMARK:TWA 5 mg/m3;Skin
- OEL-FINLAND:TWA 5 mg/m3;STEL 10 mg/m3
- OEL-FRANCE:TWA 5 mg/m3;Skin
- OEL-GERMANY:TWA 5 mg/m3;Skin
- OEL-HUNGARY:TWA 0.3 mg/m3;STEL 0.6 mg/m3;Skin
- OEL-INDIA:TWA 4 mg/m3;Skin
- OEL-THE NETHERLANDS:TWA 5 mg/m3;Skin
- OEL-THE PHILIPPINES:TWA 5 mg/m3;Skin
- OEL-POLAND:TWA 0.3 mg/m3
- OEL-SWEDEN:STEL 5 mg/m3;Skin
- OEL-SWITZERLAND:TWA 5 mg/m3;STEL 10 mg/m3;Skin
- OEL-THAILAND:TWA 5 mg/m3
- OEL-UNITED KINGDOM:TWA 5 mg/m3;Skin

#### SECTION 16 - ADDITIONAL INFORMATION

**MSDS Creation Date:** 6/03/1999, **Revision #2 Date:** 3/18/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.